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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PHILIP W. MILLER and MING PENG

Appeal 2008-2258
Application 09/692,257
Technology Center 1600

Decided: September 18, 2008

Before TONI R. SCHEINER, DONALD E. ADAMS, and ERIC GRIMES, *Administrative Patent Judges*.

ADAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal under 35 U.S.C. § 134 involves claims 1 and 8-13, the only claims pending in this application. We have jurisdiction under 35 U.S.C. § 6(b).

INTRODUCTION

The claims are directed to a substantially purified nucleic acid molecule. Claim 8 is illustrative:

8. A substantially purified nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1 or its complement.

The Examiner does not rely on prior art to support the rejections of record.

The rejections as presented by the Examiner are as follows:

Claims 1 and 8-13 stand rejected under 35 U.S.C. § 101 as lacking a patentable utility and under the enablement provision of 35 U.S.C. § 112, first paragraph based on the finding of lack of utility.

We affirm.

PROCEDURAL HISTORY

This is the second appeal of the subject matter of this Application. Appellants withdrew their first appeal (Appeal No. 2006-0705) by filing a Request for Continued Examination under 37 C.F.R. § 1.114 on March 29, 2006.

DISCUSSION

Claims 1 and 8-13 stand rejected under 35 U.S.C. § 101 as lacking a patentable utility and under the enablement provision of 35 U.S.C. § 112,

first paragraph based on the finding of lack of utility.[1] The claims have not been argued separately and therefore stand or fall together. 37 C.F.R. § 41.37(c)(1)(vii). Therefore, we limit our discussion to representative claim 8.

According to the Examiner, "[t]he claimed invention is not supported by a specific utility because the disclosed uses of the polynucleotide are not specific and are generally applicable to any polynucleotide" (Ans. 3). Appellants disagree, asserting instead that the claimed nucleic acid molecule is useful "to identify the presence or absence of a polymorphism associated with, for example, cold-response genes, and use as a marker of cold tolerance. *Specification* at page 34, line 21 to page 35, line 8" (App. Br. 5-6). According to Appellants "these utilities are not applicable to all polynucleotides in general because the claimed polynucleotides are obtained from cold-treated young maize seedlings. *See, for example, Specification* at page 88 (Example 1). Therefore, they have utilities that are specific to them, utilities that are not shared by polynucleotides in general" (App. Br. 6). We are not persuaded.

Claim 8 is drawn to a substantially purified nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1 or its complement. According to Appellants' Sequence Listing, SEQ ID NO: 1 is from the

[1] The Examiner rejected the claims under both 35 U.S.C. § 101 and 35 U.S.C. § 112, first paragraph. However the rejection for nonenablement was presented simply as a corollary of the finding of lack of utility (*see* Ans. 4 and 8). In addition, Appellants rely on their arguments to the rejection under 35 U.S.C. § 101 to rebut the rejection under the enablement provision of 35 U.S.C. § 112, first paragraph. Therefore, although we discuss only the § 101 rejection, our conclusion also applies to the rejection under the enablement provision of 35 U.S.C. § 112, first paragraph.

cDNA library LIB3136 (*see* Sequence Listing[2] 1: 17). According to Appellants' Specification the LIB3136 cDNA library "is prepared from young maize seedlings which have been subjected to cold treatment" (Spec. 88). We recognize that Appellants' Specification discloses subtractive cDNA libraries (*see e.g.,* Appellants' Example 3-6, Spec. 89-96), wherein cDNA from non-cold treated young maize seedlings is used to remove those nucleic acid molecules from the cold treated libraries that are common to both the cold treated and non-cold treated libraries. LIB3136, however, is not a subtractive library. As a result it remains unclear if the nucleic acid having SEQ ID NO: 1 is present only in cold treated libraries, or is instead present in both a cold treated library and a non-cold treated library. Accordingly, Appellants' assertion that the nucleic acid molecule having the sequence of SEQ ID NO: 1 has a specific utility because it is obtained from cold-treated young maize seedlings is not persuasive. Appellants do not identify, and we do not find, a disclosure in Appellants' Specification to support an assertion that SEQ ID NO: 1 is only present in cold-treated young maize seedling libraries.

Accordingly we are not persuaded by Appellants' assertion that a person of ordinary skill in this art would recognize that "SEQ ID NO: 1 can be used as a marker of cold tolerance" (App. Br. 7). For the foregoing reasons, this assertion lacks an evidentiary basis on this record.

As to the other disclosed utilities, e.g., "identifying promoters involved in gene regulation, determining whether a plant contains a mutation, and acting as molecular tags to isolate genetic regions, isolate genes, map genes, and determine gene function" (App. Br. 4-5), we find no

[2] Received by Technology Center 1600/2900 on July 12, 2002.

error in the Examiner's finding that these "uses of the polynucleotide are not specific and are generally applicable to any polynucleotide" (Ans. 3). Here, as in *In re Fisher*, 421 F.3d 1365, 1374 (Fed. Cir. 2005) nothing about Appellants' alleged uses set a nucleic acid molecule comprising a nucleic acid sequence of SEQ ID NO: 1 or its complement apart from the other 14,881[3] ESTs disclosed in Appellants' Specification or from any EST derived from any organism. Accordingly, we conclude, as did the court in Fisher, that Appellants have only disclosed general uses for their claimed nucleic acid molecule, not specific ones that satisfy § 101. *Cf. id.*

As the Examiner explains, "the enablement rejection is based on the fact that no patentable utility has been set forth for the claimed invention and thus, one would not know how to use the claimed invention based on the disclosure of the specification" (Ans. 8). We find no error in the Examiner's rationale. Accordingly, we are not persuaded by Appellants' assertion that since they have disclosed "the complete chemical structure of SEQ ID NO: 1, one of ordinary skill in the art would understand how to use the sequence of SEQ ID NO: 1 for the uses disclosed in the specification, *e.g.*, identifying promoters and associated regulatory sequences . . ., and identifying polymorphisms" (App. Br. 11).

[3] According to Appellants' Specification "[a]gents of the present invention include nucleic acid molecules and more specifically EST nucleic acid molecules or nucleic acid fragment molecules thereof" (Spec. 16). In addition, Appellants' Specification discloses that "[t]he present invention also provides one or more substantially purified nucleic acid molecules comprising a nucleic acid sequence selected from the group consisting of SEQ ID NO: 1 through SEQ ID NO: 14882 or complements thereof" (Spec. 10).

For the reasons set forth above, we affirm the rejection of claim 8 under 35 U.S.C. § 101 as lacking a patentable utility and under the enablement provision of 35 U.S.C. § 112, first paragraph based on the finding of lack of utility. Claims 1 and 9-13 fall together with claim 8.

CONCLUSION

In summary, we affirm the rejections of record.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

cdc

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